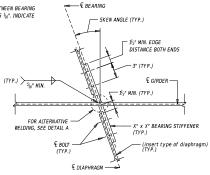


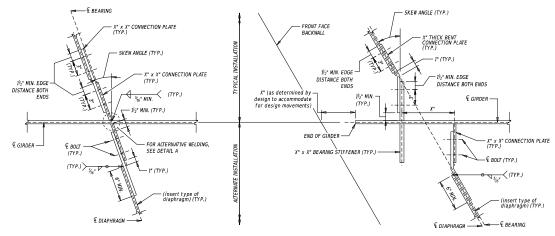
### **DETAIL A**

\* NOTE: WELD SIZE MUST BE INCREASED BY AMOUNT OF GAP BETWEEN BEARING STIFFENER OR CONNECTION PLATE AND WEB WHEN GAP EXCEEDS  $\S_6".$  INDICATE SIZE ON SHOP DRAWINGS



# CONNECTION PLATE DETAIL FOR SKEWS UP TO 20° (OPTION 1)

NOTE: EXAMPLE SHOWN USING BEARING STIFFENERS, TYPICAL FOR K-SHAPED INTERMEDIATE DIAPHRAGMS AND END/INTERMEDIATE DIAPHRAGMS UTILIZING MC CHANNELS OR W-BEAMS.



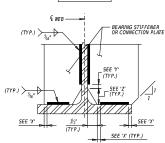
## **CONNECTION PLATE DETAIL** FOR SKEWS UP TO 20° (OPTION 2)

NOTE: THE WELDING IN 'ALTERNATE INSTALLATION' MUST BE DONE BY THE FABRICATOR. EXAMPLE SHOWN USING CONNECTION PLATES. TYPICAL FOR INTERMEDIATE CROSS FRAME DIAPHRAGMS AND END DIAPHRAGMS UTILIZING

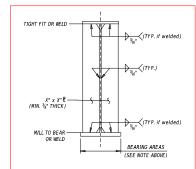
# CONNECTION PLATE DETAIL FOR SKEWS GREATER THAN 20° (END & PIER ONLY)

NOTE: THE WELDING IN 'ALTERNATE INSTALLATION' MUST BE DONE BY THE FABRICATOR.





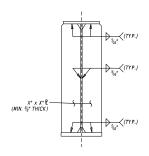
WELD TERMINATION AND **CORNER CHAMFER DETAIL** 



BEARING AREA NOTES: PROVIDE BOTTOM FLANGE IN A TRUE HORIZONTAL PLANE IN TRANSVERSE DIRECTION AND IN A TRUE PLANE LONGITUDINALLY OVER DIMENSION "L". WHERE L = WIDTH OF SOLE PLATE + (Insert value)" AHEAD AND BACK, WHERE APPLICABLE. IF THE SOLE PLATE IS WELDED TO THE BOTTOM FLANGE, PROVIDE THE SOLE PLATE MEETING THE SAME FLATNESS REQUIREMENTS. ENSURE THE SOLE

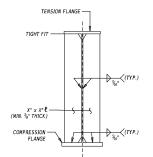
PLATES AND BEARINGS ARE IN FULL CONTACT WITH ONE OTHER AND LOADED UNIFORMLY AFTER ALL DEAD LOAD IS PLACED. MAKE NECESSARY SHOP AND/OR FIELD ADJUSTMENTS TO PROVIDE UNIFORM BEARING STRESS UNDER ALL DEAD LOADS.

**BEARING STIFFENER DETAIL** 



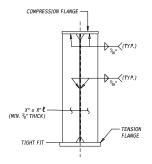
CONNECTION PLATE DETAIL FOR INTERMEDIATE DIAPHRAGMS

NOTE: CONNECTION PLATES NOT NEEDED ON EXTERIOR SIDE OF THE FASCIA GIRDER/BEAM.



INTERMEDIATE STIFFENER DETAIL

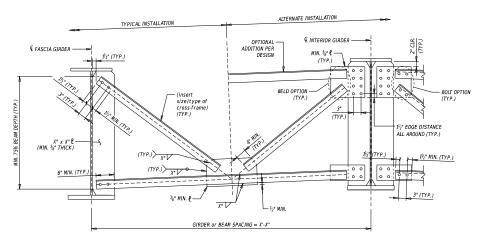




INTERMEDIATE STIFFENER DETAIL

POSITIVE MOMENT REGION

NOT TO SCALE	ISSUE DATE	DETAIL No. 335.01
	10/01/2015	DE IAIL NO. 335.01
	04/01/2021	SHEET No. 2 of 3
		OFFINO. 2 013

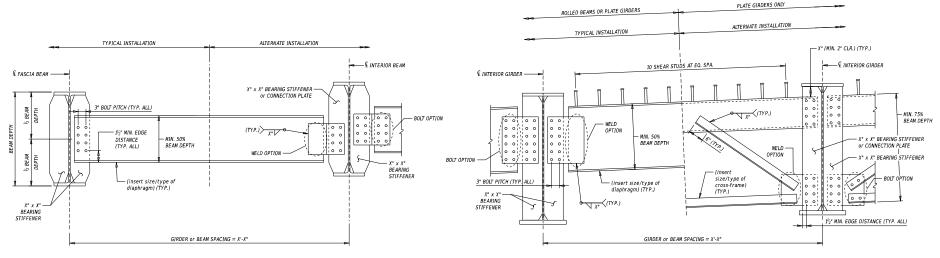


## INTERMEDIATE CROSS-FRAME DETAIL

NOTE: EXAMPLE SHOWN USING L-SHAPE CROSS-FRAMES. WT-SHAPES OPTIONAL FOR CURVED GIRDERS.

#### **DESIGNER NOTES**

- 1. REFER TO SECTION 106.8 FOR FURTHER INFORMATION ON STEEL SUPERSTRUCTURE DESIGN CONSIDERATIONS.
- ADDITIONAL GUIDANCE ON DETAILING OF STEEL SUPERSTRUCTURES CAN BE FOUND IN PUBLICATION
   'AASHTO/NSBA STEEL BRIDGE COLLABORATION G 1.2 2003 -DESIGN DRAWING PRESENTATION GUIDELINES'.
- AT "DRIP PLATE DETAIL", THE DESIGNER SHOULD CONSIDER INCREASING THE DISTANCE GREATER THAN THE SPECIFIED 5-0" MINIMUM FOR TALL ABUTMENTS OR PIERS TO LIMIT THE POTENTIAL FOR WIND-BLOWN WATER TO SPLASH ON THE CONCRETE SURRACES.
- 4. IF USE OF HIGHER PERFORMANCE STEELS (GRADES HPS 70W OR HPS 100W) ARE NEEDED, SPECIFICALLY CALL OUT WHICH STEEL PLATES WITHIN THE BEAM ARE TO BE MADE OF MATERIALS OTHER THAN GRADE 50W.
  REFER TO SECTION 106.8.1.3 FOR MORE INFORMATION.
- MODIFIED DIAPHRAGMS OR CROSS-FRAMES TO SUPPORT UTILITY INFRASTRUCTURE NOT SHOWN IN THESE
  DETAILS. IF SUCH SUPPORTS ARE NEEDED, THE DETAILS MUST BE SHOWN ON PLANS.
- 6. IT IS PREFERRED TO NOT INCLUDE JACKING STIFFENERS IN END DIAPHRAGMS (IF MC-SHAPE OR W-BEAM DIAPHRAGMS ARE USED) FOR FUTURE JACKING DUE TO UNCERTIALLY OF EXACT FLACEMENT OF FUTURE JACKING. SUCH JACKING STIFFENERS SHOULD BE ADDED IN THE FIELD BY THE CONTRACTOR TO PERFORM JACKING OPERATIONS AT A LATER DATE. HOWEVER IF THE ALTERNATE END CROSS-FRAME AS SHOWN IN "END DIAPHRAGM OF END CROSS FRAME FLALS: IS USED. THE DESIGNER SHOULD ADD FUTURE JACKING STIFFENERS AS A PPROPRIATE IN THE MAIN BEAMGIRDERS AND INCLUDE SUCH DETAILS ON PLANS.
- DETAILS SPECIFICALLY FOR CURVED GIRDERS, TRUSS STRUCTURES, GUSSET PLATES, LONGITUDINAL STIFFENERS, AND LATERAL BRACING NOT INCLUDED IN DETAIL 335.01.
- ADDITIONAL PROJECT SPECIFIC STEEL NOTES MAY BE NEEDED IF NOT COVERED IN SECTION 615 OF THE STANDARD SPECIFICATIONS OR DETAIL NO. 301.01 - BRIDGE PROJECT NOTES.
- REFER TO SECTION 106.8.6 FOR MORE INFORMATION ON ALLOWABLE ALTERNATIVES TO HIGH STRENGTH %"
  DIA. ROITS.



# INTERMEDIATE DIAPHRAGM DETAILS FOR ROLLED BEAMS

NOTE: EXAMPLE SHOWN USING MC-SHAPE DIAPHRAGMS. W-BEAM OPTIONAL TO SERVE AS A DIAPHRAGM IF ROLLED BEAM DEPTI GREATER THAN 36 INCHES DEEP.

#### END DIAPHRAGM or END CROSS-FRAME DETAILS

NOTE: EXAMPLE SHOWN USING W-BEAM DIAPHRAGMS AT "TYPICAL INSTALLATION" AND L-SHAPE AND CHANNEL AT "ATTERNATE INSTALLATION. TYPICAL INSTALLATION IS THE PREFERRED METHOD FOR PURPOSE OF FUTURE LACKING. IN THIS CASE, USE OF MC-CHANNEL OR W-BEAM ARE PREFERRED FOR BUD DIAPHRAGMS. HOWEVER THE ACCOMMODATIONS FOR FUTURE LACKING. CAN BE ACHIEVED UNDER THE GIRDER, THE "ALTERNATE INSTALLATION" MAY BE CONSIDERED.